

# Using the Behavioral Risk Factor Surveillance System to Assess the Public's Understanding of Genomics

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## Background

In 2003, the Centers for Disease Control and Prevention funded four state health departments, in part, to assess the impact of genomics on the public. To accomplish this task, questions were added to the 2004 and 2005 Behavioral Risk Factor Surveillance System (BRFSS). The BRFSS is a state-based, cross-sectional telephone survey that collects information on health risk behaviors, clinical preventive practices, and health care access from non-institutionalized adults aged 18 years and older.

The goal was to determine:

- 1) Prevalence of chronic diseases based on family history
- 2) The public's perceived risk of disease based on family history
- 3) The public's willingness to modify behaviors based on genetic knowledge
- 4) Health care provider practices regarding family history collection and use

Disclaimer: The following results were not used for comparisons between states. Methodology for data analysis may differ between states.

## RESULTS OF STATE FINDINGS

**Michigan**  
Department of  
Community Health

**2004 BRFSS**  
*focused on provider practices.*  
**Preliminary results show:**

- 85.8% of adults reported having been asked to fill out a form or personally asked by a health care professional about their family history.
- Among these, 61.2% had discussed with a health care professional their risk for certain diseases or health problems based on their family history.
- 67.6% of adults who discussed their risk with a health care professional were given recommendations based on their family history.
- Diet, exercise, getting routine tests for screening, and stop smoking were the most frequent recommendations.

For more information on the Michigan BRFSS data, please contact: Ann Annis, RN, MPH, Genomics Epidemiologist, Phone: (517) 335-9296, Email: annisa@michigan.gov

MI

**Minnesota**  
Department of  
Health

**2004 BRFSS**  
*focused on family history of diabetes.*  
**Results showed:**

- 50% of adults reported a family history of diabetes.
- 73% of adults with diabetes reported a family history of diabetes.
- 72% of adults with pre-diabetes reported a family history of diabetes.
- 49% of adults without diabetes reported a family history of diabetes.
- Of adults with a BMI > 30, 63% reported a family history of diabetes.

Disclaimer: These questions were developed by the MDH Diabetes and BRFSS programs

For more information on the Minnesota BRFSS data, please contact: Jay Desai, Phone: (651) 2819844, Email: jay.desai@health.state.mn.us

MN

**Oregon**  
Department of Health  
and Human Services

**2004 BRFSS**  
*focused on family history of diabetes.*  
**Results showed:**

- 26.8% of adults without diabetes had a family history of diabetes (parent, brother, sister related by blood – does not include diabetes during pregnancy).

For more information on the Oregon BRFSS data, please contact: Amy Zlot, MPH, Genetic Epidemiologist, Phone: (503) 731-4021 x561, Email: amy.zlot@state.or.us

OR

**Utah**  
Department of  
Health

**2005 BRFSS**  
*focused on public perceptions, provider practices, and length of time the public was willing to complete a family history.*  
**Results showed:**

- The majority would spend 30 minutes or less completing a family health history.
- 87% of adults reported knowing that having a family history of a chronic disease increased a person's risk of developing the disease.
- 73% reported that heart disease, stroke, diabetes, or cancer tended to run in their family.
- 34% reported their doctor had never discussed with them their risk for disease based on their family history.
- Of these, only 26% reported their doctor made recommendations to them based on their family history.

For more information on the Utah BRFSS data, please contact: Jess Agraz, MPH, Epidemiologist, Phone: (801) 538-9420, Email: jagraz@utah.gov

UT

## Next Steps

These results show a great need for health care provider education. Consumers perceive family history as important to their health but rarely do they understand how health care providers use it in their care. Easy-to-use family history tools are needed to collect family history and assess disease risk. These results can be used to:

- Identify at risk populations
- Target public health interventions
- Develop educational messages for providers and consumers
- Use resources efficiently
- Develop additional questions for the 2006 BRFSS and other population surveillance